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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,049	01/15/2002	Monika Oswald	218230US0X	2944

22850 7590 07/21/2003

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ALEXANDRIA, VA 22314

EXAMINER

STEIN, STEPHEN J

ART UNIT	PAPER NUMBER
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1775

14

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,049

Applicant(s)

OSWALD ET AL.

Examiner

Stephen J Stein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-33 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 and 31-33 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-30 is/are allowed.
- 6) ☒ Claim(s) 9-13, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on December 22, 2001. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

Election/Restrictions

3. Newly submitted claims 18-20 and 31-33 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The newly submitted claims are directed to the non-elected statutory class of invention directed to a method of manufacture.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 18-20 and 31-33 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. Rejoinder of these claims will be considered by the Examiner and the time of the determination of allowable subject matter of all pending elected claims.

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Claim Rejections - 35 USC § 112

4. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 11 recites the limitation “wherein the thickness of the layers is between 1 pm and 50 pm.”. Claim 12 recites the limitation “wherein the thickness of the layers is between 5 pm and 15 pm”. These limitations make the claims indefinite because it is unclear what is the unit of measurement for the thickness.

Claim Rejections - 35 USC § 102

6. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,672,330 (Hartmann et al.).

Hartmann discloses a flame-hydrolytically produced mixed oxide comprising titanium dioxide and silicon dioxide where the BET surface area of the mixed oxide is between 10 to 50 m²/g (col. 1, lines 38-42) and a Rutile (TiO₂) content of between 20-90% (col. 1, lines 47-60). Hartmann further discloses that the titanium dioxide mixed oxide can be used in the production of automobile paints (e.g. as part of a layer on a substrate) (col. 2, lines 14-18). With regard to the process limitations recited in the claims, process limitations in product claims are generally not dispositive on patentability unless it is shown that the process limitations produce a materially different product. MPEP §2113.

Claim Rejections - 35 USC § 103

7. Claims 10-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann et al.

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As stated above, Hartmann discloses a layer of a mixed oxide comprising titanium dioxide and silicon dioxide where the BET surface area of the mixed oxide is between 10 to 50 m²/g (col. 1, lines 38-42). Hartmann is silent on the thickness of the mixed oxide layer and the impurity level.

Absent a showing of criticality with respect to thickness (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the thickness through routine experimentation in order to achieve varying hardness of the coating. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). With regard to the claimed impurities, it would have been obvious to a person of ordinary skill in the art at the time of the invention to limit the impurities of the dispersion coating in order to optimize any beneficial properties of the coating. It has been held that differences of degree of purity itself does not predicate invention. *In re King and Waugh*, 43 USPQ 400 (CCPA 1939).

It finally would have been obvious to one of ordinary skill in the art to apply the dispersion coating to materials commonly used in the automobile industry (e.g. glass ceramics) since the reference teaches that the material may be used as part of a paint for automobiles.

Allowable Subject Matter

8. Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 21-30 are allowed.

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10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to teach the mixed of powders having the claimed ratio of a mixture of higher and lower BET surface areas.

Response to Arguments

11. With regard to applicants' arguments regarding claims 9-17, applicants argue that the prior art fails to teach a dispersion containing a silicon/titanium mixed oxide powder prepared by flame hydrolysis where *the titanium dioxide content is between 2 and 20%*. This argument has been considered, but not deemed persuasive. The reference clearly teaches that the rutile content (TiO₂) is between 20-90% (See col. 1, lines 59-60). With regard to the claims 21-30, applicants' arguments have been deemed persuasive and the claims have been indicated as allowable.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

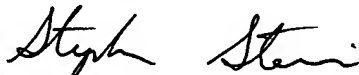
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Stein whose telephone number is (703) 305-0583. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m. If the attempts to reach the examiner are unsuccessful, the examiner's supervisor, Deborah Jones can be reached by dialing (703) 308-3822. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose phone number is (703) 308-0661. The fax phone number for this group is (703) 872-9310 for non-final responses and (703) 872-9311 for after final responses.

July 16, 2003


Stephen J. Stein


DEBORAH JONES
SUPERVISORY PATENT EXAMINER